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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,609	10/19/2005	Brian Augustine Boserio	Fisher-G	7133

7590 02/16/2007  
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EXAMINER
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KEEFE, STEPHEN L

ART UNIT	PAPER NUMBER
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3671

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/16/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/530,609

Applicant(s)

BOSERIO, BRIAN AUGUSTINE

Examiner

Stephen L. Keefe

Art Unit

3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 18-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 12-17 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 4/7/2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

***Election/Restrictions***

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-11 and 18-20, drawn to a tile and method of installing tile for seamless paving structures (Class 404).

Group II, claim(s) 12-17, drawn to a method of manufacture of tiles (Class 264). The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Groups I (Class 404) and II (Class 264) are drawn to different classes of inventive concepts and therefore do not relate to a single general inventive concept under PCT Rule 13.1.

2. During a telephone conversation with Ed Kennedy on February 7, 2007, a provisional election was made with traverse to prosecute the invention of Group I, claims 1-11 and 18-20. Affirmation of this election must be made by applicant in replying to this Office action. Claims 12-17 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Specification***

3. The disclosure is objected to because of the following informalities: The word "joins" on page 19, line 4 should be —joints—.

Appropriate correction is required.

***Claim Objections***

4. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claim 12 is now 10, 14 is now 11, 16 is now 12, 17 is now 13, 19-21 are now 14-16, and 25-28 are now 17-20. Claims will be referred to according to this consecutive numbering for the remainder of prosecution.

5. Claims 19 and 20 are objected to because of the following informalities: The phrase "claim 26" in claim 19, line 1 and claim 20, line 1 should be —claim 18—. Appropriate correction is required.

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***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, 11, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arnfield (GB 2239665 A) in view of Kakudo (EP 0724039 A1).

Regarding claims 1 and 18, Arnfield discloses a tile for seamless paving structures comprising a plurality of irregularly shaped stone elements (11) extending at least partially above a backing layer or base (13), said tile when in aligned abutting relationship with an adjacent tile, forming together with said adjacent tile a grouted joint (12) between adjacent tiles (page 4, lines 3-12 and Figures 1 and 2).

What Arnfield does not disclose is an irregularly shaped joint.

However, Kakudo teaches, for a tile for seamless paving structures, an irregularly shaped cavity extending between adjacent stone elements creating an optically seamless joint (column 6, lines 38-42 and Figure 9). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the paving structure disclosed by Arnfield to have a seamless joint, as taught by Kakudo, to "provide a connective paving block that is durable, easy to lay, and does not become uneven" (column 1, lines 37-39).

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Regarding claim 2, Arnfield discloses essentially all that is claimed with respect to claim 1, but does not disclose that the stone edges may extend up to the backing edge.

However, Kakudo teaches that, for a tile for seamless paving structures, the placement of stone elements is not limited by the edge of the backing (column 6, lines 38-42 and Figure 9). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the paving structure disclosed by Arnfield to have the stone edge even with the backing edge, as taught by Kakudo, to "provide a connective paving block that is durable, easy to lay, and does not become uneven" (column 1, lines 37-39).

Regarding claim 3, Arnfield discloses a tile for seamless paving structures wherein respective edges of said backing layer or base (13) extend beyond edges of adjacent stone elements (11) bonded thereto (page 4, lines 3-12 and Figures 1 and 2).

Regarding claim 4, Arnfield discloses a tile for seamless paving structures wherein said backing layer or base (13) is selected from any suitable shape including rectangular, regular polygon or an irregular shape nestable with adjacent tiles of the same or differing shapes (page 2, line 4 and page 5, lines 13-17).

Regarding claim 5, Arnfield discloses essentially all that is claimed with respect to claim 1, but does not disclose interlocking edges.

However, Kakudo teaches, for a tile for seamless paving structures, that a rectangular backing layer or base having interlocking edges (ie one or more spigot-like projections corresponding to socket-like recesses of adjacent tiles) (column 6, lines 38-42 and Figure 9). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the paving structure disclosed by Arnfield to have interlocking edges, as taught by Kakudo, to "provide a connective paving block that is durable, easy to lay, and does not become uneven" (column 1, lines 37-39).

Regarding claim 6, Arnfield discloses a tile for seamless paving structures wherein said backing layer or base (13) comprises a rigid material to which said stone elements are secured (page 2, lines 12-14 and Figure 2).

Regarding claim 7, Arnfield discloses essentially all that is claimed with respect to claim 1, but does not disclose a flexible base.

However, Kakudo teaches, for a tile for seamless paving structures, that a backing layer or base (11) comprises a flexible "adjustment layer" to which stone elements are secured (column 4, lines 45-48). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the paving structure disclosed by Arnfield to have interlocking edges, as taught by Kakudo, to "provide a connective paving block that is durable, easy to lay, and does not become uneven" (column 1, lines 37-39).

Regarding claim 8, Arnfield discloses a tile for seamless paving structures wherein the backing layer or base (13) comprises a cementitious composition with or without a polymeric bonding agent (page 2, lines 12-14).

Regarding claim 11, Arnfield discloses a tile for seamless paving structures wherein the tile is formed whereby normally exposed surfaces of stone elements (11) comprising the tile lie in a substantially common plane (page 5, lines 1-5 and Figure 2).

Regarding claim 19, Arnfield discloses a tile for seamless paving structures wherein the tiles are laid on the surface with abutting base edges (page 3, lines 9-11 and Figure 4).

Regarding claim 20, Arnfield discloses essentially all that is claimed with respect to claim 18, but does not disclose an optically seamless joint.

However, Kakudo teaches, for a tile for seamless paving structures, an irregularly shaped cavity extending between adjacent stone elements creating an optically seamless joint (column 6, lines 38-42 and Figure 9). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the paving structure disclosed by Arnfield to have a seamless joint, as taught by Kakudo, to "provide a connective paving block that is durable, easy to lay, and does not become uneven" (column 1, lines 37-39).



7. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arnfield ('665) in view of Kakudo ('039), as applied to claim 1 above, and further in view of Harnapp (US 5,816,738).

The above combination discloses essentially all that is claimed as applied to claim 1, but does not disclose a polymeric base.

However, Harnapp teaches that, for a paving stone assembly, a backing layer or base comprises a plastic (polymeric) base layer (column 2, lines 48-52 and Figure 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the paving structure disclosed by the above combination to have a plastic base layer, as taught by Harnapp, so that "the desired elastic properties are achieved with a simultaneous saving of material" (column 2, lines 29-32).

### ***Conclusion***

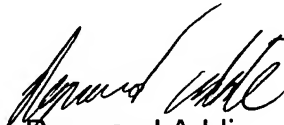
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Foulger (US 3,000,276), House (EP 0329280 A2), Threadgold (GB 2113736 A), Molyneaux (GB 2197892 A), Seymour et al. (US 2,718,829), and Lang (US 4,653,956) provide additional concepts for pavement structures.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen L. Keefe whose telephone number is 571-272-5652. The examiner can normally be reached on 8:00 am to 5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 571-272-6998. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Raymond Addie  
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Group 3600

SLK  
2/12/07